

CLAIMS

1. A method of treating a person with rheumatoid arthritis, said method comprising administering to said person an effective amount of a compound that blocks an interaction between DC-SIGN and ICAM-3.
2. The method of claim 1 wherein said compound is selected from the group consisting of a mannose carbohydrate, a fucose carbohydrate, a plant lectin, an antibiotic, a sugar, a protein and an antibody.
3. The method of claim 2 wherein said mannose carbohydrate is selected from the group consisting of mannan and D-mannose.
4. The method of claim 2 wherein said fucose carbohydrate is L-fucose.
5. The method of claim 2 wherein said plant lectin is concanavalin A.
6. The method of claim 2 wherein said antibiotic is pradimicin A.
7. The method of claim 2 wherein said sugar is selected from the group consisting of N-acetyl-D-glucosamine and galactose.
8. The method of claim 2 wherein said protein is selected from the group consisting of the HIV envelope glycoprotein gp120, an analog of gp120 that binds DC-SIGN, or a fragment of gp120 that binds DC-SIGN.
9. The method of claim 2 wherein said antibody is selected from the group consisting of a) an antibody or antibody fragment that binds to DC-SIGN and b) an antibody or antibody fragment that binds to ICAM-3.

10. The method of claim 9 wherein said antibody is a humanized antibody, a chimeric antibody, a polyclonal antibody, a monoclonal antibody, or a single chain antibody.
11. The method of claim 9 wherein said antibody fragment is an Fab, an F(ab')₂, an F(ab'), an Fv or an Fd.
12. The method of claim 9 wherein said antibody is selected from the group consisting of AZN-D1 and AZN-D2.
13. The method of claim 2 wherein said compound is soluble DC-SIGN, a soluble analog of DC-SIGN that binds ICAM-3, or a soluble fragment of DC-SIGN that binds ICAM-3.
14. A method to diagnose whether a human has rheumatoid arthritis, said method comprising measuring the percentage of inflammatory cells that express DC-SIGN from synovia of said human, wherein an amount of 50% or greater of said cells expressing DC-SIGN is an indication of rheumatoid arthritis.
15. The method of claim 14 wherein said amount is 60% or greater of said cells.
16. The method of claim 14 wherein said amount is 75% or greater of said cells.
17. The method of claim 14 wherein said measuring is performed using an antibody that binds DC-SIGN.
18. The method of claim 17 wherein said antibody is AZN-D1 or AZN-D2.
19. A method to isolate macrophages from other cells in a biological sample, said method comprising a) contacting said sample with an agent that binds DC-SIGN and b) separating cells that bind to said agent from cells that do not bind to said agent.

20. The method of claim 19 wherein said agent is an antibody.
21. The method of claim 20 wherein said antibody is AZN-D1 or AZN-D2.
22. The method of claim 19 wherein said agent is selected from the group consisting of a mannose carbohydrate, a fucose carbohydrate, a plant lectin, an antibiotic, a sugar, and a protein.
23. The method of claim 19 wherein said sample is obtained from person with rheumatoid arthritis.
24. The method according to claim 19 wherein said antibody is attached to a solid support.
25. The method according to claim 19 wherein said macrophages express CD68.